

REMARKS

Claims 23-30 are pending in the instant application. Claims 24, 25, 27 and 28 have been amended herein to address the typo errors. No new matter has been added as a result of the amendments made herein.

TERMINAL DISCLAIMER AND NONSTATUTORY TYPE DOUBLE PATENTING

Claims 23-30 were objected to under the judicially created doctrine of double patenting over claims 1-42 of U.S. Patent No. 6,226,237 since the claims if allowed, would improperly extend the "right to exclude" already granted in the patent. Applicants have concurrently filed a terminal disclaimer in compliance with 37 CFR 1.321(b) with regards to Claims 23-30 to overcome the provisional rejection that is based on grounds of nonstatutory double patenting.

As such, Applicants respectfully submit that dependent Claim 23 and Claims 24-30 have overcome the double patenting rejection. Applicants respectfully request reconsideration of Claims 23-30.

102 Rejections

Claims 23-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Koo (U.S. 6,006,337). Applicants have reviewed the above cited reference and respectfully submit that the present invention as recited in Claims 23-30 is neither anticipated nor rendered obvious by the Koo reference.

Independent Claim 23

The Examiner is respectfully directed to independent Claim 23 which sets forth that an embodiment of the present invention includes an apparatus, that comprises:

an integrated circuit comprising state machine circuitry capable of generating one or more signals to operate a CD-ROM drive and play audio CDs, said integrated further comprising circuitry capable of selectively coupling or isolating a digital computer bus and said CD-ROM drive.

Applicants respectfully submit that Koo does not anticipate any integrated circuit capable of generating signals to operate a CD-ROM drive as well as selectively coupling or isolating a digital computer bus and the CD-ROM drive as presently claimed in Claim 23.

Referring to FIGS. 1 and 3 as well as Col. 5, Lines 10-15 and Lines 17-23 in the Koo reference, an IDE controller 23 or 43 is coupled to a CDD (compact disk drive) 28 or 48 to control signal input/output of the CDD. The Koo reference discloses a power supply which supplies a main power or a CD-power according to the state of the second switch. Referring to Col. 5, Lines 40-45, if the CD-power is selected, the power supply produces CD-power under the condition that the main power for the *entire* computer system is not supplied. That is, the Koo reference leaves open the possibility that power to some of the computer system is still supplied.

More specifically, the Koo reference only discloses a computer with two power modes, but does not disclose what is the relationship between the IDE controller and the CDD. In fact, the Koo reference does not expressly identify whether the IDE controller or the

system bus is *not* energized under the CD-power. The Koo reference merely discloses that the CD-power is supplied to some devices, such as, CDD, CDD controller and audio circuit. However, the Koo reference does not disclose any relationship between CDD and the IDE controller or the system bus during application of the CD-power. More particularly, the Koo reference contemplates the possibility that the system bus is energized since the Koo reference teaches that "the conventional audio card also can be used instead of the audio circuit 45." (See col. 5, lines 53-54 of the Koo reference). As shown in Figure 1, the system bus necessarily needs to be energized to activate the conventional audio card in the computer system. As such, Applicants respectfully assert that the Koo reference does not teach that the digital computer bus and the CD-ROM drive are isolated from each other, as is recited in independent Claim 23.

By contrast, the apparatus in the claimed invention has circuitry capable of selectively coupling or *isolating* a digital computer bus and a CD-ROM drive, as is recited in independent Claim 23. In other words, in the claimed invention, the computer bus can be isolated from the CD-ROM. In addition, embodiments of the present invention teach isolation as recited in the specification, reproduced below for convenience as follows:

. . . when the computer subsystem 104 is not energized, to reduce electrical power consumption caused by leakage electrical currents in ICs included in the computer subsystem 104: 1. the audio switch 154 electrically isolates the audio signals bus 152 from the CD-ROM drive 128; and 2. the audio-interface IC 102 correspondingly electrically isolates itself from the IDE bus 128. (See para. 50 of the published specification)

That is, the isolating relationship between the computer bus and the CD-ROM drive will reduce the electrical power consumption when the computer subsystem is not energized. On

the other hand, the Koo reference does not disclose any isolating relationship between the computer bus and the CD-ROM drive.

Furthermore, embodiments of the claimed invention teach an apparatus having an integrated circuit capable of generating one or more signals to operate a CD-ROM drive and that is capable of selectively coupling or isolating a digital computer bus and the CD-ROM drive. On the other hand, the Koo reference does not disclose any single integrated circuit capable of both generating signals to operate a CD-ROM drive and isolating a bus and the CD-ROM drive. The Koo reference does not disclose the isolating relationship between IDE controller and CD-ROM, not mention to the fact that the Koo reference does not disclose any single integrated circuit to perform those functions. Consequently, the embodiments of the present invention as are set forth in Claim 23 are neither anticipated nor rendered obvious by the Koo reference.

Thus, Applicants respectfully submit that the present invention as disclosed in independent Claim 23 is not anticipated by the Koo reference, and is in a condition for allowance. Claims 24-25 which depend from independent Claim 23 are also in a condition for allowance as being dependent on an allowable base claim.

Independent Claim 26

The Examiner is respectfully directed to independent Claim 26 which sets forth that an embodiment of the present invention includes a system, that comprises, in part:

...an integrated circuit comprising state machine
circuitry capable of generating one or more signals

to operate a CD-ROM drive and play audio CDs,
said integrated circuit further comprising circuitry
capable of selectively coupling or isolating said
computer bus... (Emphasis Added)

The Examiner is respectfully directed to independent Claim 26 which contains limitations similar to those set forth in Claim 23, and are distinctly different from and non-obvious over the Koo reference. That is, Applicants respectfully assert that the Koo reference does not teach circuitry that is capable of isolating the computer bus from the CD-ROM drive, as is recited in independent Claim 26 of the present invention.

Thus, Applicants respectfully submit that the present invention as disclosed in independent Claim 26 is in a condition for allowance. In addition, Claims 27-30 which depend from independent Claims 26 are also in a condition for allowance as being dependent on an allowable base claim.

Conclusion

In light of the above-listed remarks, the Applicants respectfully request allowance of the remaining Claims.

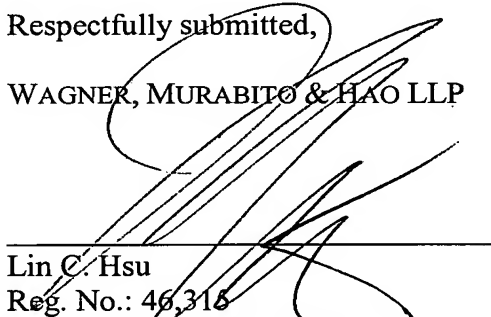
Based on the arguments presented above, Applicants respectfully assert that Claims 23-30 overcome the rejections of record. Therefore, Applicants respectfully solicit allowance of these claims.

The Examiner is urged to contact the Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Respectfully submitted,

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